ABSTRACT OF THE DISCLOSURE

An automated condensate drain system for gas flow elements is provided that ncludes a differential pressure transmitter, a sequence controller, and two condensate chambers for receiving and collecting accumulated moisture from air flow elements and transmitters. The condensate chambers are placed in low profile positions within the instrument piping system, requiring downward sloping of the instrument tubing to accentuate condensation drainage. The sequence controller initiates a drainage cycle (set as desired by operator), permitting the transmitter to enter an auto-zero cycle, thereby energizing an internal isolation valve in the transmitter while maintaining the transmitter output. The sequence controller energizes solenoid valves of the two condensate chambers, wherein the chambers open to permit drainage of accumulated moisture assisted by static pressure system. After the drainage cycle is completed, the sequence controller de-energizes solenoid valves and returns the drain valves to a closed position and the transmitter returns to normal operation.